

WHAT IS CLAIMED IS:

1. A method of recovering from memory errors, the method comprising:

5 detecting a memory error in a section of computer memory; and

in response to detecting the memory error, instructing an operating system to discontinue use of the section of computer memory with the memory error.

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2. The method of Claim 1, further comprising:

detecting multiple memory modules in a system; and

in response to detecting the multiple memory modules, creating a greater number of memory objects to represent respective sections of the multiple memory modules.

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3. The method of Claim 1, wherein:

the method further comprises creating multiple

20 memory objects to represent respective sections of computer memory; and

the operation of instructing the operating system to discontinue use of the section of computer memory with the memory error comprises sending an eject event from a basic input and output system (BIOS) to the operating system, wherein the eject event identifies the memory object that represents the section of computer memory with the memory error.

4. The method of Claim 3, further comprising:  
receiving the eject event from the BIOS; and  
in response to receiving the eject event, invoking  
an eject method to disable the section of computer memory  
5 with the memory error.

5. The method of Claim 1, further comprising using  
an advanced configuration and power interface (ACPI)  
eject control method to disable the section of computer  
10 memory with the memory error.

6. The method of Claim 1, further comprising:  
identifying a good subsection and a bad subsection  
of the section of computer memory with the memory error;  
15 creating a new memory object to represent the good  
subsection; and  
instructing the operating system that the new memory  
object is available for use.

20 7. The method of Claim 1, wherein the operation of  
detecting a memory error comprises detecting that an  
error threshold has been exceeded.

8. An information handling system that automatically recovers from memory errors, the information handling system comprising:

computer memory;

5 a processor in communication with the computer memory;

an operating system residing in the computer memory and executable by the processor;

10 a basic input-output system (BIOS) residing in the computer memory and executable by the processor; and

recovery logic in the BIOS that performs operations comprising:

detecting a memory error in a section of the computer memory; and

15 in response to detecting the memory error, instructing the operating system to discontinue use of the section of computer memory with the memory error.

9. The information handling system of Claim 8,  
20 wherein:

the computer memory comprises multiple random access memory (RAM) modules;

25 the information handling system further comprises multiple memory objects that represent respective sections of the multiple RAM modules; and

the multiple memory objects are more numerous than the multiple RAM modules.

10. The information handling system of Claim 8,  
wherein:

the information handling system further comprises  
multiple memory objects that represent respective  
5 sections of the computer memory;

the recovery logic instructs the operating system to  
discontinue use of the section of computer memory with  
the memory error by sending an eject event to the  
operating system; and

10 the eject event identifies the memory object that  
represents the section of computer memory with the memory  
error.

11. The information handling system of Claim 3,  
15 wherein:

the operating system receives the eject event from  
the BIOS; and

20 in response to receiving the eject event, the  
operating system invokes an eject method to disable the  
section of computer memory with the memory error.

12. The information handling system of Claim 8,  
wherein the operating system uses an advanced  
configuration and power interface (ACPI) eject control  
25 method to disable the section of computer memory with the  
memory error.

13. The information handling system of Claim 8,  
wherein the recovery logic performs further operations  
comprising:

- identifying a good subsection and a bad subsection  
5 of the section of computer memory with the memory error;
- creating a new memory object to represent the good  
subsection; and
- instructing the operating system that the new memory  
object is available for use.

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14. The information handling system of Claim 13,  
further comprising:

- a memory controller in communication with the  
processor and the computer memory;
- 15 a memory address space that the memory controller  
maps to the computer memory; and
- wherein the information handling system makes the  
new memory object available for use by causing the memory  
controller to add a new range of memory addresses to the  
20 memory address space.

15. The information handling system of Claim 8,  
further comprising:

at least first and second nodes, wherein the first  
node contains the processor and a portion of the computer  
5 memory, the second node contains another processor and  
another portion of the computer memory; and

wherein, after the recovery logic in the BIOS has  
instructed the operating system to discontinue use of the  
section of computer memory with the memory error, the  
10 first and second nodes both stop using the section of  
computer memory with the memory error.

16. A program product for recovering from errors in memory of an information handling system, the program product comprising:

a computer-usuable medium; and

5 instructions encoded on the computer-usuable medium, wherein the instructions, when executed by the information handling system, perform operations comprising:

detecting an error in a section of the memory; and

10 in response to detecting the error, instructing an operating system of the information handling system to discontinue use of the section of memory with the error.

17. The program product of Claim 16, wherein the 15 computer-usuable medium further comprises a basic input and output system (BIOS) that includes the instructions which detect the error and instruct the operating system to discontinue use of the section of memory with the error.

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18. The program product of Claim 16, wherein:

the computer-usuable medium further comprises instructions that create multiple memory objects to represent respective sections of computer memory;

25 the instructions to discontinue use of the section of computer memory with the memory error comprise an eject event; and

the eject event identifies the memory object that represents the section of computer memory with the memory 30 error.

19. The program product of Claim 16, wherein the computer-usable medium further comprises an eject method that disables the section of computer memory with the 5 memory error in response to the eject event.

20. The program product of Claim 19, wherein the eject method comprises an advanced configuration and power interface (ACPI) eject control method.

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21. The program product of Claim 16, wherein the computer-usable medium further comprises instructions that perform operations comprising:

identifying a good subsection and a bad subsection 15 of the section of memory with the memory error;

creating a new memory object to represent the good subsection; and

instructing the operating system that the new memory object is available for use.

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